

SEQUENCE

<110> Hexima Limited
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 Heath, Robyn L.
 Clarke, Adrienne E.

<120> Arabinogalactan Protein Compositions and Methods for Fostering
 Somatic Embryogenic Competence

<130> 123-03 WO

<140> Not assigned
 <141> 2005-03-31

<150> US 60/558,609
 <151> 2004-03-31

<160> 27

<170> PatentIn version 3.2

<210> 1
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 <212> PRT
 <213> Artificial sequence

<220>
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 <222> (5)..(6)
 <223> X is any amino acid.

<220>
 <221> misc_feature
 <222> (5)..(6)
 <223> Xaa can be any naturally occurring amino acid

<400> 1

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Asp | Tyr | Ser | Xaa | Xaa | Thr | Ser | Asn | Pro | Ile | Ala | Glu | Tyr | Lys |
| 1 | | | | 5 | | | | 10 | | | | | | 15 |

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<220>
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<400> 2

| | | | | | | | |
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| 1 | | | | 5 | | | |

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Ser Thr Ala Ser Leu Gly Val Thr Leu Ser Val
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Ala Gly Thr Leu Arg Pro Glu Lys Pro Phe Thr Ala Asn
 1 5 10

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<220>
 <223> Synthetic peptide

<400> 5

Asp Gly Trp Val Val Ser Pro Ser Glu Asn Tyr Asn His Trp Ala Glu
 1 5 10 15

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 <223> X is any amino acid.

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 <223> Xaa can be any naturally occurring amino acid

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<223> Xaa can be any naturally occurring amino acid

<400> 6

Ile Gln Val Xaa Asp Glu Val Xaa Glu
1 5

<210> 7

<211> 13

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<213> Artificial sequence

<220>

<223> Synthetic peptide

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Tyr Ala Gly Asp Thr Ile Thr Gly Asn Thr Asp Asn Ser
1 5 10

<210> 8

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<213> Artificial sequence

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<221> variation

<222> (1)..(16)

<223> Y is C or T; I is inosine; R is A or G.

<220>

<221> variation

<222> (1)..(20)

<223> Y is C or T; I is inosine; R is A or G; N is inosine.

<220>

<221> misc_feature

<222> (6)..(6)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (9)..(9)

<223> n is a, c, g, or t

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<221> misc_feature

<222> (12)..(12)

<223> n is a, c, g, or t

<400> 8

aayccnatng cngartayaa

20

<210> 9

<211> 20
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 <213> Artificial sequence

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 <221> variation
 <222> (1)..(20)
 <223> Y is C or T; N is inosine.

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 <222> (18)..(18)
 <223> n is a, c, g, or t

<400> 9
 aaytayaayc attgggcnga

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<220>
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 <222> (1)..(23)
 <223> N is inosine; R is A or G; Y is C or T.

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 <222> (3)..(3)
 <223> n is a, c, g, or t

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 <222> (12)..(12)
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 <222> (18)..(18)
 <223> n is a, c, g, or t

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 <222> (21)..(21)
 <223> n is a, c, g, or t

<400> 10
 ccncaraarc cnttyacngc naa

23

<210> 11

<211> 84
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> GhPRP1 partial nucleotide sequence.

 <400> 11
 ccccgagaagc catttactgc gaacaagctt ccggtttattc tctacaccgt tggggccattt 60
 gcttttcgaac ccaaattgcta ctag 84

 <210> 12
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 <223> GhPRP1 partial amino acid sequence.

 <400> 12
 Pro Glu Lys Pro Phe Thr Ala Asn Lys Leu Pro Phe Ile Leu Tyr Thr
 1 5 10 15
 Val Gly Pro Phe Ala Phe Glu Pro Lys Cys Tyr
 20 25

 <210> 13
 <211> 22
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Synthetic primer

 <400> 13
 gctattttcta tagcaactca ac 22

 <210> 14
 <211> 24
 <212> DNA
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 <220>
 <223> Synthetic primer

 <400> 14
 caaactcaaa acaaccccaa aacc 24

 <210> 15
 <211> 22
 <212> DNA
 <213> Artificial sequence

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<223> Synthetic primer

<400> 15

gatgaaagca aggcacacac ac

22

<210> 16

<211> 20

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic primer

<400> 16

ccccttaata attcagcacc

20

<210> 17

<211> 528

<212> DNA

<213> Cotton

<400> 17

atggctgcta aagctttttc aagaagtata actcctttgg tgcttttggt catatatttta 60

agctttgcac aaggtaaaga aatcatgggt ggtggcaaaa caggcgcttg gaagatacct 120

tcttctgaat cagattctct caacaaatgg gctgaaaaag ctcgtttcca aatcggcgac 180

tctctcgtgt ggaaatatga tgggtggtaaa gactcgggtgc tccaagttag taaggaggat 240

tatacaagtt gcaatacgtc gaacccgatt gccgagtaca aagatgggaa caccaagggtg 300

aagcttgaaa agtcaggacc atatttcttc atgagtggag caaagggcca ctgagagcaa 360

ggccagaaga tgattgtggt tgtgatgtct caaaagcata ggtacattgg aatctctcca 420

gcaccttcgc cggttgattt tgaagggtccg gccgttgctc caacaagcgg agttgcaggg 480

ttgaaggctg gtttggttgg gacagtgggg gttttggggg tgttttga 528

<210> 18

<211> 175

<212> PRT

<213> Cotton

<400> 18

Met Ala Ala Lys Ala Phe Ser Arg Ser Ile Thr Pro Leu Val Leu Leu
1 5 10 15

Phe Ile Phe Leu Ser Phe Ala Gln Gly Lys Glu Ile Met Val Gly Gly
20 25 30

Lys Thr Gly Ala Trp Lys Ile Pro Ser Ser Glu Ser Asp Ser Leu Asn
35 40 45

Lys Trp Ala Glu Lys Ala Arg Phe Gln Ile Gly Asp Ser Leu Val Trp
50 55 60

Lys Tyr Asp Gly Gly Lys Asp Ser Val Leu Gln Val Ser Lys Glu Asp
65 70 75 80

Tyr Thr Ser Cys Asn Thr Ser Asn Pro Ile Ala Glu Tyr Lys Asp Gly
85 90 95

Asn Thr Lys Val Lys Leu Glu Lys Ser Gly Pro Tyr Phe Phe Met Ser
100 105 110

Gly Ala Lys Gly His Cys Glu Gln Gly Gln Lys Met Ile Val Val Val
115 120 125

Met Ser Gln Lys His Arg Tyr Ile Gly Ile Ser Pro Ala Pro Ser Pro
130 135 140

Val Asp Phe Glu Gly Pro Ala Val Ala Pro Thr Ser Gly Val Ala Gly
145 150 155 160

Leu Lys Ala Gly Leu Leu Val Thr Val Gly Val Leu Gly Leu Phe
165 170 175

<210> 19
<211> 660
<212> DNA
<213> Cotton

<400> 19
atgggggttcg aaaggtatct tgctagtgtg ttgatagtga taatgctgtc ttttatcact 60
tcatcacagg gttataagtt ctatgttggt ggtagagacg gttgggttgt tagtccttct 120
gagaactaca atcattgggc tgaaaggaat agattccaag tcaatgatac tctctttttc 180
aagtacaaga aagggtcaga ctcggtgctg ttggtaacaa gagaagatta cttctcatgc 240
aacaccaaga acccaattca gtctttaaca gaagggtgatt cactctttac atttgatcgg 300
tcgggtccct tctttttcat caccggtaac gctgataatt gcaaaaaagg gcaaaagctg 360
atcgctcgtg tcatggctgt aagacacaaa cccagcaac aacctccttc acctctcccc 420
tcatctgctg tgacaacagc gccggtttct ccaccacat taccattcc tgaaactaac 480
cctcctgtag agtcaccaa gagcagtgag gctccatctc atgatgctgt ggaaccagct 540
ccgccggagc acagatcggg ttcatcaca ctagtatgtt ctacctggct ggtgttggtg 600
ttcggcattt gggtcagcat ggocctgggg atcgaaaatg tagtttggtt ttgggtgctga 660

<210> 20
 <211> 219
 <212> PRT
 <213> Cotton

<400> 20

Met Gly Phe Glu Arg Tyr Leu Ala Ser Val Leu Ile Val Ile Met Leu
 1 5 10 15

Ser Phe Ile Thr Ser Ser Gln Gly Tyr Lys Phe Tyr Val Gly Gly Arg
 20 25 30

Asp Gly Trp Val Val Ser Pro Ser Glu Asn Tyr Asn His Trp Ala Glu
 35 40 45

Arg Asn Arg Phe Gln Val Asn Asp Thr Leu Phe Phe Lys Tyr Lys Lys
 50 55 60

Gly Ser Asp Ser Val Leu Leu Val Thr Arg Glu Asp Tyr Phe Ser Cys
 65 70 75 80

Asn Thr Lys Asn Pro Ile Gln Ser Leu Thr Glu Gly Asp Ser Leu Phe
 85 90 95

Thr Phe Asp Arg Ser Gly Pro Phe Phe Phe Ile Thr Gly Asn Ala Asp
 100 105 110

Asn Cys Lys Lys Gly Gln Lys Leu Ile Val Val Val Met Ala Val Arg
 115 120 125

His Lys Pro Gln Gln Gln Pro Pro Ser Pro Ser Pro Ser Ser Ala Val
 130 135 140

Thr Thr Ala Pro Val Ser Pro Pro Thr Leu Pro Ile Pro Glu Thr Asn
 145 150 155 160

Pro Pro Val Glu Ser Pro Lys Ser Ser Glu Ala Pro Ser His Asp Ala
 165 170 175

Val Glu Pro Ala Pro Pro Glu His Arg Ser Gly Ser Phe Lys Leu Val
 180 185 190

Cys Ser Thr Trp Leu Val Leu Gly Phe Gly Ile Trp Val Ser Met Ala
 195 200 205

Leu Gly Ile Glu Asn Val Val Cys Phe Trp Cys
 210 215

<210> 21
 <211> 48
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Synthetic primer

 <400> 21
 caccctgggt ccgcgtggat ccaaagaaat catggttggt ggcaaaac 48

<210> 22
 <211> 31
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Synthetic primer

 <400> 22
 ctagattcca atgtacctat gcttttgaga c 31

<210> 23
 <211> 45
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Synthetic primer

 <400> 23
 caccctgggt ccgcgtggat cctataagtt ctatggtggt ggtag 45

<210> 24
 <211> 34
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Synthetic primer

 <400> 24
 ctattgttgc tggggtttgt gtcttacagc catg 34

<210> 25
 <211> 147
 <212> PRT
 <213> Artificial sequence

 <220>
 <223> Recombinant PL1 sequence.

 <400> 25

Met Ser Tyr Tyr His His His His His Leu Glu Ser Thr Ser Leu
 1 5 10 15

Tyr Lys Lys Ala Gly Ser Ala Ala Ala Pro Phe Thr Leu Val Pro Arg
20 25 30

Gly Ser Lys Glu Ile Met Val Gly Gly Lys Thr Gly Ala Trp Lys Ile
35 40 45

Pro Ser Ser Glu Ser Asp Ser Leu Asn Lys Trp Ala Glu Lys Ala Arg
50 55 60

Phe Gln Ile Gly Asp Ser Leu Val Trp Lys Tyr Asp Gly Gly Lys Asp
65 70 75 80

Ser Val Leu Gln Val Ser Lys Glu Asp Tyr Thr Ser Cys Asn Thr Ser
85 90 95

Asn Pro Ile Ala Glu Tyr Lys Asp Gly Asn Thr Lys Val Lys Leu Glu
100 105 110

Lys Ser Gly Pro Tyr Phe Phe Met Ser Gly Ala Lys Gly His Cys Glu
115 120 125

Gln Gly Arg Lys Met Ile Val Val Val Met Ser Gln Lys His Arg Tyr
130 135 140

Ile Gly Ile
145

<210> 26

<211> 144

<212> PRT

<213> Artificial sequence

<220>

<223> Recombinant Pl2 sequence.

<400> 26

Met Ser Tyr Tyr His His His His His His Leu Glu Ser Thr Ser Leu
1 5 10 15

Tyr Lys Lys Ala Gly Ser Ala Ala Ala Pro Phe Thr Leu Val Pro Arg
20 25 30

Gly Ser Tyr Lys Phe Tyr Val Gly Gly Arg Asp Gly Trp Val Val Ser
35 40 45

Pro Ser Glu Asn Tyr Asn His Trp Ala Glu Arg Asn Arg Phe Gln Val
50 55 60

Asn Asp Thr Leu Phe Phe Lys Tyr Lys Lys Gly Ser Asp Ser Val Leu
65 70 75 80

Leu Val Thr Arg Glu Asp Tyr Phe Ser Cys Asn Thr Lys Asn Pro Ile
85 90 95

Gln Ser Leu Thr Glu Gly Asp Ser Leu Phe Thr Phe Asp Arg Ser Gly
100 105 110

Pro Phe Phe Phe Ile Thr Gly Asn Ala Asp Asn Cys Lys Lys Gly Gln
115 120 125

Lys Leu Ile Val Val Val Met Ala Val Arg His Lys Pro Gln Gln Gln
130 135 140

<210> 27

<211> 15

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic peptide

<400> 27

Lys Glu Ile Met Val Gly Gly Lys Thr Gly Ala Trp Lys Ile Pro
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